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### **REMARKS**

In response to the Final Office Action mailed March 22, 2007 (hereinafter "Final Action"), no claims have been cancelled and claims 1, 8-9, 11, 17 and 21 have been amended. Claim 23 has been newly added. Therefore, claims 1-3, 6-9, 11-13, 16-19 and 21-23 are pending. Support for the instant amendments is provided throughout the as-filed specification. Thus, no new matter has been added. In view of the foregoing amendments and following comments, allowance of all the claims pending in the application is respectfully requested.

### **REJECTIONS UNDER 35 U.S.C. §102**

Claims 1-3, 6-9 and 21-22 stand rejected under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Patent Application Publication No. 2003/0160919 A1 to Suzuki *et al.* ("Suzuki"). Applicants respectfully traverse this rejection for at least the reason that Suzuki neither explicitly nor impliedly discloses each of the elements of claims 1-3, 6-9 and 21-22.

A patent claim is anticipated if a prior art reference discloses, either expressly or inherently, all of the limitations of the claim. Applicants disagree with the propriety of the rejection. However, solely in an effort to expedite prosecution, claims 1 and 21 have been amended to clarify points of novelty over Suzuki. With this said, claim 1 is directed to a display apparatus selectively operated in a first mode and a second mode and recites, *inter alia*, a display panel having a viewer side and a back side, said viewer side having a first area and a second area, in response to an image signal, said first area and said second area capable of displaying variable data on said viewer side; a first light source for illuminating said first area from said back side; and a second light source for illuminating said second area from said

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back side; wherein said first area and said second area are illuminated with substantially same brightness by said first light source and said second light source simultaneously to make said first area and said second area having substantially same visually brightness on the viewer side when said display apparatus is operated in said first mode; wherein said second light source is driven to a lower brightness level to make said second area visually darker than said first area on the viewer side when said display apparatus is operated in said second mode for conserving power of said display apparatus in claim 1.

Claim 21 is directed to a mobile device selectively operated in a first mode and a second mode and recites, *inter alia*, a display panel having a viewer side and a back side, said viewer side having a first area and a second area, in response to an image signal, said first area and said second area capable of displaying variable data on said viewer side; a first light source for illuminating said first area on said viewer side; a second light source for illuminating said second area from said back side; and a processor for controlling said first light source and said second light source according to modes of said mobile device; wherein said first light source and said second light source are driven to illuminate said first area and said second area simultaneously and to make said first area and said second area have substantially same visually brightness as each other when said electronic device is operated in said first mode, so that data for said first area and data for said second area are illuminated on said viewer side at the same time; wherein said second light source is driven to generate light with lower brightness than said first light source to make said second area visually darker than said first area on the viewer side when said electronic device is operated in said second mode for conserving power of said mobile device in claim 21.

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One aspect of the invention is to provide a liquid crystal display apparatus with multiple light sources and a mobile device having the same, wherein each light source is independently controlled based on its corresponding state to conserve power energy.

As shown in Figure 1, for example, a display apparatus 100 of a mobile device includes a panel 10, which has a first area 11 and a second area 12 on the viewer side of the panel 10. The first area 11 is configured to display first data 21, such as time, battery status, phone number, caller ID, or communication status. The second area 12 is configured to display second data 22, such as personalized graphics or texts. Particularly, the first area 11 and the second area 22 are designed to be on the viewer side. Then, in the first mode, data for the first area 11 and data for the second area 12 are illuminated on the viewer side at the same time, or, in another example, the first area 11 and the second area 12 can be combined to show a “fully illuminated” image on the viewer side of the panel 10. In the second mode, only the first area 11 is illuminated and the second area 12 is dark, so that only data for the first area 11 is illuminated on the viewer side. Further, shown in Figure 2, the first light source 31 and the second light source 32 are disposed on the back side, opposite to the viewer side of the panel 10.

Another aspect of the present invention is to provide light guide plates, which include light guide structure for guiding light toward a predetermined direction so as to produce lights in uniform intensity, minimize light interference, and prevent light leak. As shown in Figure 2, for example, the panel 10 includes a first light guide plate 41 and a second light guide plate 42. These two light guide plates 41 and 42, which are disposed side by side at the back side of the display panel 10, can be embodied as two separate units or integrated into one. The first light guide plate 41 has light guide structures 50 to guide light provided by the first light

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source 31 toward the first area 11 and away from the second area 12. And the second light guide plate 42 includes guide structures 50 to reflect and scatter light provided by the second light source 32, so that the light uniformly illuminates the second area 12. The light guide structures 50 of the second guide plate 42 is preferably embodied as grooves for guiding the light from the second light source away from the first light guide plate 41.

Claims 1 and 21 both require (1) that the first area and the second area are on a viewer side of a panel and both are illuminated from the back side, and (2) that data for the first area and data for the second area are illuminated on the viewer side at the same time in the first mode and the second area is visually darker than the first area on the viewer side in the second mode. As such, a viewer, from the viewer side, can see the data displayed on both the first area and the second area at the same time in the first mode, or see a “partially illuminated” image while the second area is dark in the second mode. The cited portions of Suzuki does not disclose *at least* these features.

Suzuki discloses, in Figures 3 and 6, that both sides of the display are enabled by using a single liquid crystal panel. Particularly, the liquid crystal panel includes a transmitting type region 3 and a reflecting type region 4. A part of one surface of the liquid crystal panel is defined to be a first display surface for the transmitting type region 3 and a part of the other surface of the liquid crystal panel is defined to be a second display surface for the reflecting type region 4. Thus, Suzuki discloses *at least* two different display surfaces of the panel, which is different than the invention as recited in claims 1 and 21.

Moreover, Suzuki indicated a direction A for viewing the transmitting type region 3 and a direction B for viewing the reflecting type region 4, wherein the direction A and the direction B are opposite. *See*, paragraph [0036] of Suzuki. In other words, the transmitting

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type region 3 and the reflecting type region 4 are illuminated from two opposite directions, and data for the transmitting type region 3 and data for the reflecting type region 4 cannot be viewed at the same time. Further, neither from the direction A nor from the direction B, can a viewer see a “partially illuminated” image. Due to this arrangement, for example, Suzuki cannot be applied to the mobile device which is designed to have a single-side display as recited in claims 1 and 21. Therefore, the cited portions of Suzuki are indeed different than the invention as recited in claims 1 and 21.

Therefore, the cited portions of Suzuki clearly fail to disclose each and every element of claims 1 and 21. Thus, the cited portions of Suzuki fail to anticipate claims 1 and 21. Claims 2-3, 6-9 and 22-23 are patentable *at least* for their dependency from an allowable base claim (claims 1 and 21, respectively), and for the additional features they recite.

Thus, Applicants respectfully request that the rejection under 35 U.S.C. §102(e) be withdrawn and the claims be allowed.

#### **REJECTIONS UNDER 35 U.S.C. §103**

Claims 11-13 and 16-19 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Suzuki in view of U.S. Patent No. 7,016,701 B2 to Colorado (“Colorado”). Claims 11-13 and 16-19 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Suzuki in view of U.S. Patent No. 7,019,714 B2 to Uchida *et al.* (“Uchida”). Applicants respectfully traverse these rejections for *at least* the reason that a *prima facie* case of obviousness has not been established.

Applicants respectfully traverse the rejection based on Colorado because Colorado is not a prior art reference. Colorado was filed on December 23, 2002. However, the present

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application claims priority to Taiwanese Patent Application No. 91133762 filed on November 19, 2002, which antedates Colorado's filing date. Taiwanese Patent Application No. 91133762 has been fully translated into English and was submitted for consideration with Applicants' previous response on May 29, 2006. Therefore, Applicants respectfully request that the rejection be withdrawn.

Claim 11 is directed to a display system and recites, *inter alia*, an electronic device selectively operated in a first mode and a second mode; a display panel having a viewer side and a back side, said viewer side having a first area and a second area, in response to an image signal, said first area and said second area capable of displaying variable data on said viewer side; a first light source for illuminating said first area from said back side; a second light source for illuminating said second area from said back side; and a processor for controlling said first light source and said second light source according to modes of said electronic device; wherein said first light source and said second light source are driven to illuminate said first area and said second area simultaneously and to make said first area and said second area have substantially same visually brightness as each other when said electronic device is operated in said first mode, so that data for said first area and data for said second area are illuminated on said viewer side at the same time; wherein said second light source is driven to generate light with lower brightness than said first light source to make said second area visually darker than said first area on the viewer side when said electronic device is operated in said second mode for conserving power of said display system in claim 11.

Claim 11, as discussed above with respect to claims 1 and 21, require (1) that the first area and the second area are on a viewer side of a panel and are illuminated from the back

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side, and (2) that data for the first area and data for the second area are displayed on the viewer side at the same time in the first mode and the second area is visually darker than the first area on the viewer side in the second mode. However, the cited portions of Suzuki and Uchida do not disclose, teach or render obvious *at least* this feature.

The Office Action alleges that Uchida teaches a processor 305/306 for controlling the first illumination region 20 and the second illumination region 10. However, what Uchida actually teaches is an electronic apparatus that provides an organic electroluminescent device and a liquid crystal device. *See*, Abstract of Uchida. Particularly, the mobile terminal electronic apparatus provided by Uchida has an organic EL display (organic EL panel) that has a full color active matrix display, and a transflective liquid crystal display device (liquid crystal panel) that is a full color active matrix display. *See*, column 7, lines 55-61 of Uchida. Therefore, the first illumination region 20 and the second illumination region 10 in Uchida are embodied as two separate display panels, instead of a display panel having two display area as recited in claim 11.

For *at least* these reasons, the cited portions of Suzuki and Uchida, either alone or in combination, do not disclose, teach or render obvious claim 11. Therefore, claim 11 is clearly patentable. Claims 12-13 and 16-19 are patentable at least by virtue of their dependency from an allowable base claim (claim 11), and for the additional features they recite. Thus, Applicants respectfully request that the rejections under 35 U.S.C. §103(a) be withdrawn and the claims be allowed.

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**CONCLUSION**

Having addressed each of the foregoing rejections, it is respectfully submitted that a full and complete response has been made to the outstanding Office Action and, as such, the application is in condition for allowance. Notice to that effect is respectfully requested.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

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Respectfully submitted,

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